CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

QC ABSTRACT

NAME OF WORK: Balance Works to Samudhaya Bhavana in Ward No.02

Sl No	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
		Materials				
	Cement	Fineness by dry sieving	One Test		1	1
		Finess by Air permeablity method	One Test		1	1
		Density	One Test		1	1
		Standard Consistency	One Test		1	1
		Initial Setting time	One Test		1	1
		Final Setting time	One Test		1	1
		Soundness (Le Chatelier's Method)	One Test		1	1
		Compressive Strength	One Test		1	1
	Course aggregate(40 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
	Course aggregate(20 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
		Aggregate crushing Value	One Test		1	1
		Aggregate Impact Value	One Test		1	1
	Fine aggregate	SIEVE ANALYSIS	One Test		1	1
		Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
	Steel	Bend test	One Test		1	1
		Tensile Test	One Test		1	1
		Yield Test	One Test		1	1
		ReBend test	One Test		1	1
	Block(400*200*200)	BLOCK DENSITY	One Test		1	1
		WATER ABSORPTION	One Test		1	1
		DIMENSION ANALYSIS	One Test		1	1
		COMPRESSIVE STRENGTH	One Test		1	1
	Precast (100mm)	Core Compressive Strength	One Test		1	1
		Corrected Cylinder Compressive Strength	One Test		1	1
		Equivalent Cube Compressive Strength	One Test		1	1
	PCC(M15)	Compressive Strength(7days and 28days)	2 set /6-15cum	8.2	4	4

Sri. Suresh & Ramesh Gowda

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

	PCC(M20)	Compressive Strength(7days and 28days)	4 set /31-100 cum	33.42	8	8
	RCC(M25)	Compressive Strength(7days and 28days)	1 set /1-5 cum	2.69	2	2
	RCC(M25)	Compressive Strength(7days and 28days)	1 set /1-5 cum	1.05	2	2
	RCC(M25)	Compressive Strength(7days and 28days)	1 set /1-5 cum	0.88	2	2
	RMC(M25)	Compressive Strength(7days and 28days)	1 set /1-5 cum	2.38	2	2
	RCC(M25)	Compressive Strength(7days and 28days)	3 set /16-30 cum	16.1	6	6
	CERAMIC TILES	MEASUREMENTS OF LENGTH, WIDTH AND THICKNESS	One Test		1	1
		MODULUS OF RUPTURE AND BREAKING STRENGTH	One Test		1	1
	Mortar Sand	Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
		Compacted Bulk Density	One Test		1	1
		Loose Bulk Density	One Test		1	1
		SIEVE ANALYSIS	One Test		1	1
	Plaster Sand	Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
		SIEVE ANALYSIS	One Test		1	1

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2020-10-15-62** **Date: 13-03-20**
Project Name	:	Balance Works to Samudhaya Bhavana in Ward No.02
Agency	:	Sri. K.Gopireddy, #3, 1st Cross, 1st Main, Ramachandrappa Layout, Veeranna Palya, Arabic College Post, Bangalore-560045.
Customer's Reference	:	EE (Project)/Ynk Zone/WO/177/2019-20
Date of Receipt	:	10-03-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	11-03-20
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	2.2	–
2	Finess by Air permeablity method (m^2/kg,Min)	249.5	225m^2/kg, Min
3	Density (gm/cc)	3.14	–
4	Standard Consistency (%)	27.5%	Not specified
5	Initial Setting time	170 minutes	Not less than 30 minutes
6	Final Setting time	260 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig Date BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	CP-2020-10-15-62	**Date: 08-04-20**
Project Name	:	Balance Works to Samudhaya Bhavana in Ward No.02	
Agency	:	Sri. K.Gopireddy, #3, 1st Cross, 1st Main, Ramachandrappa Layout, Veeranna Palya, Arabic College Post, Bangalore-560045.	
Customer's Reference	:	EE (Project)/Ynk Zone/WO/177/2019-20	
Date of Receipt	:	10-03-20	
Sample Type	:	Birla Super 53grade	
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6	
Date of test	:	11-03-20	
Environmental Conditions during test	:	Temperature: Humidity:	26°C 72%

Compressive Strength

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	28.6N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.4N/mm^2	Not less than 37 N/mm^2
3	28 Days	58.6N/mm^2	Not less than 53 N/mm^2

* The results obtained are satisfactory as per standard requirements.

FOR CIVIL Pro.

CIVIL Pro Sig. Date. BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2020-10-15-62** **Date: 13-03-20**
Project Name	:	Balance Works to Samudhaya Bhavana in Ward No.02
Agency	:	Sri. K.Gopireddy, #3, 1st Cross, 1st Main, Ramachandrappa Layout, Veeranna Palya, Arabic College Post, Bangalore-560045.
Customer's Reference	:	EE (Project)/Ynk Zone/WO/177/2019-20
Date of Receipt	:	10-03-20
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	10-03-20

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : 15000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	423	423	2.8	97.2	90-100
3	20 mm	5852	6275	41.8	58.2	30-70
4	10 mm	4232	10507	70.0	30.0	10-35
5	4.75 mm	4225	14732	98.2	1.8	0-5
6	Pan	268	15000	100.0	0	---

CIVIL Pro Sig..... Date..... BANGALORE

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

[illegible] : CP-2020-10-15-62 **Date: 13-03-20**

[illegible]

[illegible] Tests	Result	Requirements as per IS:383-2016
[illegible]	12.3	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
[illegible]	11.6	
[illegible]	2.68	–
[illegible]	1.56	–
[illegible]	1.59	–
[illegible]	0.23	–

[illegible] as per standard requirements.

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

[illegible] Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	CP-2020-10-15-62 Date: 12-03-20
Project Name	:	Balance Works to Samudhaya Bhavana in Ward No.02
Agency	:	Sri. K.Gopireddy, #3, 1st Cross, 1st Main, Ramachandrappa Layout, Veeranna Palya, Arabic College Post, Bangalore-560045.
Customer Reference	:	EE (Project)/Ynk Zone/WO/177/2019-20
Date of Receipt	:	10-03-20
Sample Type/ Size	:	20mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	10-03-20

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : 5000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	278	278	5.6	94.4	90-100
3	10 mm	2754	3032	60.6	39.4	25-55
4	4.75 mm	1754	4786	95.7	4.3	0-10
5	Pan	214	5000	100	0	–

CIVIL Pro Sig..... Date..... BANGALORE

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2020-10-15-62 Date: 12-03-20

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	12.2	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	11.7	
3	Specific Gravity	2.69	_
4	Bulk Density(Loose) (Kg/l)	1.53	_
5	Bulk Density(Compacted) (Kg/l)	1.54	_
6	Water Absorption(%)	0.25	_
7	Aggregate crushing Value(%)	23.3	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	22.7	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

**The results obtained are satisfactory as per standard requirements.

FOR CIVIL Pro.

CIVIL Pro Sig. Date BANGALORE

R KARTHIK RECHAN
Authorized Signature
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID	:	**CP-2020-10-15-62** **Date: 12-03-20**
Project Name	:	Balance Works to Samudhaya Bhavana in Ward No.02
Agency	:	Sri. K.Gopireddy, #3, 1st Cross, 1st Main, Ramachandrappa Layout, Veeranna Palya, Arabic College Post, Bangalore-560045.
Customer's Reference	:	EE (Project)/Ynk Zone/WO/177/2019-20
Date of Receipt	:	10-03-20
Sample Type	:	Fine Aggregate
Reference to BIS codes	:	IS 383 : 2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1, 3) RA2012 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
Date of Test	:	10-03-20
Total weight taken	:	1000 grams

Sl.No	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	86	86	8.6	91.4	90-100	90-100	90-100	95-100
3	2.36 mm	145	231	23.1	76.9	60-95	75-100	85-100	95-100
4	1.18 mm	156	387	38.7	61.3	30-70	55-90	75-100	90-100
5	600 micron	188	575	57.5	42.5	15-34	35-59	60-79	80-100
6	300 micron	175	750	75.0	25.0	5-20	8-30	12-40	15-50
7	150 micron	162	912	91.2	8.8	0-10	0-10	0-10	0-15
8	Pan	88	1000	100.0	0.0	---	---	---	---

Result : **The tested Sample Conforms to Grading Zone II**

CIVIL Pro Sig..... Date..... BANGALORE

TEST REPORT OF FINE AGGREGATE

: CP-2020-10-15-62

Date: 12-03-20

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	2.4	–
2	Specific Gravity	2.59	–
3	Material finer than 75 micron(%)	5.9	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

The results obtained are satisfactory as per standard requirements.

FOR CIVIL Pro.

CIVIL Pro Sig Date BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT ON PHYSICAL REQUIREMENTS OF SOLID CONCRETE BLOCKS

Date: 21-05-20

Lab ID	:	CP-2020-10-15-62
Project Name	:	Balance Works to Samudhaya Bhavana in Ward No.02
Owner	:	Sri. K.Gopireddy, #3, 1st Cross, 1st Main, Ramachandrappa Layout, Veeranna Palya, Arabic College Post, Bangalore-560045.
Customer's Reference	:	EE (Project)/Ynk Zone/WO/177/2019-20
Date of Receipt	:	18-05-20
Sample Type/Size	:	Solid concrete blocks size (400X200X200)mm
Reference to BIS codes	:	IS : 2185 (Part 1) : 2005(RA 2010) Concrete Masonry Specification Part 1:Hollow and Solid Concrete Blocks (Dimensions -Annex-B, Clause 9.2 and 10 , Block density Annex -C Clause 9.3 and10, Compressive strength Annex -D Clause 9.4 and 10, Water absorption Annex -E Clause 9.5 and 10)
Date of Test	:	18-05-20

BLOCK DENSITY:

Sl.No.	Measurement of overall Dimensions of Individual Blocks			Overall Volume of the Block in Cubic Centimetres	Weight of Oven Dried Block in Kilograms to the nearest 10 Gram	Block Density in Kg/cum*10^6	Avg.Block Density in (Kg/cum)	As per IS 2185(Part 1) :2005 (RA 2010)
	Length	Breadth	Height					
	mm	mm	mm	(Cm^3)	Kg	Kg/m^3	Kg/m^3	
1	400	203	200	16240	31.992	1969.9	2034.5	Not less than 1800Kg/m^3
2	403	201	203	16444	33.934	2063.7		
3	400	198	200	15840	32.786	2069.8		

WATER ABSORPTION:

Sl.No.	Wet weight after water absorption	Dry weight (Oven dry)	Water Absorption	Avg.Water Absorption	As per IS 2185(Part 1):2005 (RA 2010)
	kg	kg	%	%	
1	33.91	32.25	4.89	4.25	Shall not be more than 10% by mass
2	33.57	32.14	4.28		
3	33.44	32.24	3.59		

CIVIL Pro Sig Date BANGALORE

: CP-2020-10-15-62 Date: 21-05-20

ANALYSIS

Length mm	Breadth mm	Height mm	Requirement as per IS 2185(Part 1):2005
403	201	203	Length : ± 5mm Breadth : ± 3mm Height : ± 3mm
402	201	199	
401	200	201	
403	201	201	
403	203	199	
399	201	200	
401	201	202	
403	202	201	
404	200	202	
401	202	200	
400	202	199	
403	202	201	
399	199	203	
401	202	203	
403	199	200	
399	199	203	
404	202	199	
399	202	201	
400	201	203	
400	202	200	
401	**201**	**201**	

CIVIL Pro
Sig.....
Date.....
BANGALORE

: CP-2020-10-15-62

Date: 21-05-20

STRENGTH:

Size of solid block		Area	Failure Load	Compressive strength	Average Compressive strength
Length	Breadth				
mm	mm	(mm^2)	(KN)	N/mm^2	(N/mm^2)
400	201	80402	417.5	5.2	5.2
402	201	80615	418.2	5.2	
401	200	80347	417.7	5.2	
405	201	80875	420.0	5.2	
405	203	81676	418.1	5.1	
399	201	80058	413.2	5.2	
401	201	80693	418.0	5.2	
405	202	81420	415.7	5.1	

Requirements (Table 2, Clause 5.1, 5.2 and 9.4)

Grade	Compressive strength	
	Minimum average	Minimum Individual units.
C250	5.00 N/mm^2	4.00 N/mm^2
C400	4.00 N/mm^2	3.20 N/mm^2

Results obtained are satisfactory as per standard requirements.

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST RESULTS OF STEEL

Lab ID	:	CP-2020-10-15-62 **Date: 11-03-20**
Project Name	:	Balance Works to Samudhaya Bhavana in Ward No.02
Client	:	Sri. K.Gopireddy, #3, 1st Cross, 1st Main, Ramachandrappa Layout, Veeranna Palya, Arabic College Post, Bangalore-560045.
Customer's Reference	:	EE (Project)/Ynk Zone/WO/177/2019-20
Date of Receipt	:	10-03-20
Sample Type	:	Sunvik
Reference IS codes	:	IS 1786-2008, IS:1608-2005(RA 2011), IS 1599-2012.
Date of test	:	10-03-20

Sl.No	Identification of sample	Grade of the sample	Diameter of the steel bar	Weight of the sample	Yield stress	Tensile strength	Elongation	Bend test	Rebend test
			(mm)	(kg/m)	(N/mm2)	(N/mm2)	(%)		
01	Sunvik	Fe500	8	0.391	512	652	20.0%	Satisfactory	Satisfactory
02	Sunvik	Fe500	10	0.616	528	672	20.0%	Satisfactory	Satisfactory
03	Sunvik	Fe500	12	0.888	544	668	20.0%	Satisfactory	Satisfactory
04	Sunvik	Fe500	16	1.581	572	674	19.0%	Satisfactory	Satisfactory
05	Sunvik	Fe500	20	2.476	584	693	19.0%	Satisfactory	Satisfactory
06	Sunvik	Fe500	25	3.472	597	712	18.0%	Satisfactory	Satisfactory

*The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

Format No: CP/TF/01

TEST REPORT OF PRECAST COVER SLAB

Date: 28-08-20

: CP-2020-10-15-62

: Balance Works to Samudhaya Bhavana in Ward No.02

: Sri. K.Gopireddy, #3, 1st Cross, 1st Main, Ramachandrappa Layout, Veeranna Palya, Arabic College Post, Bangalore-560045.

: EE (Project)/Ynk Zone/WO/177/2019-20

: 24-08-20

: Precast Cover Slab (100mm)

: IS: 516 - 1959 Methods of Tests for Strength of Concrete

: 24/08/2020

	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
	(mm)	(mm)	(kg)	(Sq.mm)	(KN)	(N/mm^2)	(N/mm^2)	(N/mm^2)
	75.51	100.48	1.116	4477	80.9	18.1	16.8	21.0
	75.49	100.52	1.122	4475	82.3	18.4	17.1	21.4
	75.50	100.51	1.118	4476	81.5	18.2	16.9	21.2

are satisfactory as per standard requirements.

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

9472924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |